

Remarks

Claims 21-32 are pending.

The Examiner repeated his rejection of Claim 21 under 35 U.S.C. § 102(b) as unpatentable over U.S. Patent 4,426,712 ("Gorski-Popiel"), stating:

As shown in figures 2-4b, Gorski-Popiel discloses a system and a method for operating a GPS C/A code receiver comprising:

A plurality of channel means (column 2, lines 50-62), each comprising:

Means (282) for forming x multibit digital segment values per C/A code period, each multibit digital segment value representing a sequential code segments of a received composite of satellite signals (column 4, line 20-column 5, line 39); and

A plurality of correlating means for correlating each multibit digital segment value with n (=10 here) satellite specific set of m differently time delayed segments of C/A code modulation to form at least n time m time delay specific correction values (column 5, lines 35-60), where m is greater than the number of bits (8) in each multibit digital segment value.

Applicants respectfully submit that the Examiner is mistaken. Applicants' Claim 21 recites:

21. A system for operating a GPS C/A code receiver comprising:

a plurality of channel means, each comprising:

means for forming x multibit digital segment values per C/A code period, x being an integer, each multibit digital segment value representing a sequential code segment of a received composite of satellite signals; and

a plurality of correlating means for correlating each multibit digital segment value with n satellite specific set of m different time

delayed segments of C/A code, n and m being integers, to form at least n times m delay specific correlation values, wherein m is greater than the number of bits in each multibit digital segment value.

(emphasis added)

As explained in Applicants' Amendment of February 1, 2005, the underlined limitation above results from careful consideration of a number of factors. These factors and the resulting advantages are discussed, for example, in Applicants' Specification, beginning on page 52, line 17 to page 55, line 38. In that Amendment, Applicants pointed out that Gorski-Popeil's system does not meet the above-underlined limitation by providing, for each satellite, 8 code position correlations (i.e., $m = 8$) for each 8 bits of quantized data:

In Fig. 4b the structure of one correlator, for example, correlator 7, is expanded. In this correlator, the data from quantizer 36, sampled once every 500 nsec (twice per code chip), is accumulated into a system of double buffered 1X8 bit serial to parallel registers 282. ... Meanwhile the first register is switched to parallel output operation and all 8 bits are combined with the doppler compensated code input 190 in half-adders (exclusive-OR) 284-298 to give a correlation. ... During one μ sec therefore 8 code position correlations have been performed for all 10 satellites under investigation.

(Gorski-Popiel, at col. 5, lines 35-52; emphasis added)

As Gorski-Popiel neither meets Claim 21's limitations nor provides any motivation or suggestion to modify its system in the direction of Applicants' Claim 21, Applicants therefore respectfully submit that Claim 21 is allowable over Gorski-Popiel.

In response to Applicants' arguments, in the Office Action of July 14, 2005, the Examiner states:

Examiner's response – In this case, here $m=8$ and 1 bit in each multibit digital segment value. Therefore, m is greater than the number of bits in each multibit digital segment value.

Applicants are puzzled by the Examiner's answer. As quoted above, Gorski-Popiel teaches 8 code position correlations for each 8 bits of quantized data. The Examiner did not indicate where in Gorski-Popiel he finds the teachings of a 1-bit multibit digital segment value. At any rate, the limitation "multibit" cannot be met by 1 bit. Applicants therefore respectfully request the Examiner to further explain where he finds in Gorski-Popiel the teaching of a 1-bit multibit digital segment value, and how he believes that the "multibit" limitation is met by such a single-bit digital segment value. Reconsideration and allowance of Claim 21 are therefore requested.

The Examiner did not comment on Claims 22-32.

With respect to the Examiner's rejection of Claim 21 under the judicially created doctrine of obviousness type double patenting, Applicants will submit a terminal disclaimer upon the Examiner indicating allowable subject matter in Claim 21 and if the Examiner's double-patenting rejection is proper at that time.

As Applicants believe that all pending claims (i.e., Claims 21-32) are allowable, allowance of these claims is therefore requested. If the Examiner has any question regarding the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant at (408)-392-9250.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on November 14, 2005.

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Date of Signature

Respectfully submitted,



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